



Application Serial No. 09/902,633
Attorney's Docket No. 026350-060

REMARKS

Entry of the foregoing and prompt and favorable consideration of the subject application are respectfully requested.

By the foregoing amendment, a paper copy of the Sequence Listing for the subject application has been added between the last page of the specification, currently page 11, and the first page of the claims, currently page 12. Please amend the page numbers accordingly. Further, pages 9 and 10 of the specification have been amended to recite the appropriate sequence identifiers. No new matter has been added. As required, a copy of the Sequence Listing on computer readable form and a Declaration Pursuant to 37 C.F.R. §§ 1.821-.825 are also enclosed herewith.

Favorable consideration on the merits is respectfully requested.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By Susan M. Dadio
Susan M. Dadio
Registration No. 40,373

1737 King Street, Suite 500
Alexandria, Virginia 22314-2756
(703) 836-6620

Date: October 9, 2001

Attachment to Preliminary Amendment and Reply dated October 9, 2001

Paragraph beginning at Page 9, line 16

Figure 2 shows detailed results of the detection of a hairpin structure composed of (SEQ ID NO.:1) GCGAAAAACGC. A gold electrode modified with a hairpin type DNA (SEQ ID NO.:2) (5'-HS-GCGAAAAACGC-3') was dipped in solution containing 10 mM of phosphate buffered saline (pH 7.0), 10 mM of KCl and 0.1 mM of CNDIFc. Ag/AgCl standard electrode (reference electrode) and a counter electrode of platinum were used to measure a cyclic voltamogram. The results were shown in graph (b) in Figure 2. 1.2 μ A of a response current was gained at 572 mV. That is, 20 pmol of hairpin structures provided a response current of 1.2 μ A. Further, in this system, several femtomole of hairpin structure type DNA's were detectable. A response current at -457 mV was shown responding to the presence of naphthalene diimide.

Paragraph beginning at Page 10, line 17

Further, in the above experiment, the hairpin structure DNA was hybridized with an oligonucleotide (SEQ ID NO.:3) (5'-GCGTTTTCGC-3') complementary to the hairpin DNA to cancel the hairpin structure site. The results were shown in graph (c), in which current response at 572 mV was disappeared. The results show that, even when a double stranded nucleic acid site coexists with a specific single stranded nucleic acid site, the specific single stranded nucleic acid region may be detected. Further, the results definitely [confirms] confirm that CNDIFc specifically binds to a highly ordered structural site of a single stranded nucleic acid and thereby provides current response on electrodes.